

DIVISION 7 - THERMAL/MOISTURE PROTECTION

SECTION 07270 - FIRESTOPPING

PART 1 - GENERAL

1.01 - DESCRIPTION

- A. For other requirements see General Conditions and General Requirements (Division 1).
- B. SCOPE OF WORK
 - 1. Firestop all penetrations through fire-rated walls and fire-rated partitions.
 - 2. All other penetrations in non-rated walls to be calked tight.

1.02 - QUALITY CONTROL

- A. Manufacturer to be experienced for not less than three (3) years in the production of firestopping materials and to be certified by 'UL'.
- B. Installer to be experienced for not less than five (5) years and be certified installer by manufacturer.

1.03 - REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM) Publications:
 - E 84 Surface Burning Characteristics of Building Materials
 - E 119 Fire Tests of Building Construction and Materials
 - E 814 Fire Tests of Through-Penetration Firestops
- B. Underwriter Laboratory (UL):
 - UL-1479 Fire Test of Through-Penetration Firestops
- C. National Fire Protection Association (NFPA) Standard:
 - N.F.P.A. 251, Latest Edition.

1.04 - BUILDING CODES AND INSPECTIONS

- A. Work to comply with Michigan Building Code and Local codes.

- B. Work to be inspected by Building Officials as required before covering the work.

1.05 - COORDINATION

- A. Coordinate the work with other trades.

1.06 - TESTING

- A. Submit copies of 'UL' test results for verification of products' performance.

1.07 - JOB CONDITIONS

- A. Contractor to verify field conditions as required.

1.08 - PRODUCT DELIVERY, HANDLING AND STORAGE

- A. Products to be delivered to job site in manufacturer's containers, properly labeled.
- B. Storage in dry place and properly protected from the weather, per manufacturer's requirements.

1.09 - SUBMITTALS

- A. Submit manufacturer's instructions for applying sealant. Submit schedule of all 'UL' tested systems to be used.
- B. Submit manufacturer's certifications that materials meet or exceed specified requirements.
- C. Provide certification stating that sealant has been completed in full accordance with requirements to provide necessary fire-resistance ratings.
- D. Provide copies of certified test reports:
 - 1. Fire test reports of sealant application to substrate materials similar to project conditions.
 - 2. Reports from reputable independent testing agencies of product proposed for use, which indicate conformance to ASTM E-814.
- E. Submit manufacturer's details for each type proposed.

PART 2 - PRODUCTS

2.01 - MATERIALS

- A. SEALANTS FOR FIRESTOPPING

Materials shall be asbestos free and be 'UL' labeled.

Flame Spread 25 or less and Smoke Develop 50 or less, per ASTM E-84 test.

Fire Resistance and Hose Stream Tests: To be rated "F" and "T" per ASTM E814 or 'UL' 1479.

B. BLANKETS FOR FIRESTOPPING

Materials to be inorganic, with a melting point of 3200°F minimum.

Flame Spread 25 or less and Smoke Develop 50 or less, per ASTM E-84 tests.

C. RETENTION CLIPS

As recommended by manufacturer to support blankets' or sealants' firestopping in place without displacement.

2.02 - ACCEPTABLE PRODUCTS/MANUFACTURERS

A. SEALANT FIRESTOPPING

1. Fyre Putty by Carborundum
2. 3M-Fire Barrier Caulk CP25, N/S or SL
3. #2000 Fire Stop, by Dow Corning Company
4. Pensil 100/200 by G.E.

B. BLANKET FIRESTOPPING

1. 'Fiberfax' by Carborundum Co.
2. 'Thermafiber' by USG Industries, Inc.

PART 3 - EXECUTION

3.01 - ENVIRONMENTAL REQUIREMENTS

- A. Do not apply sealants when temperature of substrate material and surrounding air is below 40°F.
- B. Maintain sealant at a minimum 70°F for best workability
- C. Maintain all products dry at all times.

3.02 - EXAMINATION

- A. Confirm compatibility of surfaces to receive sealant materials.

- B. Verify that surfaces of openings are sound, clean, dry and ready to receive application of sealants.
- C. Verify that penetration elements are securely fixed and properly located, with a minimum of 1/2 inch space between penetrations and surfaces of openings.

3.03 - PREPARATION

- A. Protect adjacent surfaces and equipment from damage.
- B. Clean contact surfaces of dirt, dust, grease, oil, loose material, or other matter which may affect bond of sealant.
- C. Remove incompatible materials which affect bond by scraping, brushing, scrubbing or sandblasting.

3.04 - APPLICATION

- A. Apply sealant in strict accordance with manufacturer's instructions.
- B. Apply sealant in sufficient thickness to achieve required rating.
- C. Pack sealant material solidly around penetrations, fill openings to a depth as required to obtain required fire-rating.
- D. Pack blanket firestopping solidly in gaps to be firestopped. Blanket to be secured in place by clips, not by friction action.
- E. Contractor to have a copy of application instructions at job site for EPA's On-Site Representative's use.

3.05 - CLEAN-UP

- A. Remove from job site all material leftovers, tools, etc. at the completion of the work.
- B. Remove sealant from materials and surfaces not specifically required to be sealed.

END